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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/027,783	12/19/2001	Hugh L. Brunk	P0513	9584
23735	7590	10/20/2006		
DIGIMARC CORPORATION 9405 SW GEMINI DRIVE BEAVERTON, OR 97008				
			EXAMINER PATEL, SHEFALI D	
			ART UNIT 2624	PAPER NUMBER

DATE MAILED: 10/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	10/027,783		BRUNK ET AL.	
	Examiner		Art Unit	
	Shefali D. Patel		2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 48-55 and 57-74 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 48-55 and 57-74 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on August 2, 2006 has been entered.

Response to Arguments

2. Applicant's arguments filed on August 2, 2006 (pages 8-17) have been fully considered but they are not persuasive.

Applicants' argue on page 10 with regard to claim 48 stating:

"It seems to us, rather, that while the cited passage discusses hash values H1 and H2, these hash values are used for authentication through matching and are then merely stored (see, e.g., Col. 27, lines 30-31 and line 45-47). The hash values H1 and H2 are not provided to a network resource to identify metadata associated with an image, with identified metadata being then received. Thus, the hash values are used for authentication through matching, but not metadata identification."

The examiner respectfully disagrees.

Note at col. 27 lines 39-43 a "signature" is provided for the hash value H1 – the signature being the metadata – and this is transmitted to the user terminal 20 with the image data. Hence, the hash values are provided to a network resource to identify metadata associated with an image.

Applicants' further argue on page 11 with regard to claim 48 stating:

"We also find the motivation to combine Iwamura with Cox lacking... Iwamura uses a compression function and yet doesn't mention a distortion concern in the cited passages. If this is such a strong motivator - as suggested in the stated motivation and considering Iwamura uses a compression function - why didn't Iwamura hint or suggest that compensation was needed?"

The examiner respectfully disagrees.

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The examiner has stated in the previous office action that “Iwamura does not expressly disclose changing a geometric orientation of the data. Cox discloses this at element 18, Figure 1, col. 8 line 11, lines 33-47...The motivation for doing so is to have a watermarking method be resilient to any distortions introduced by transmission or compression algorithms as suggested by Cox; also, by having orientated the data of the image and linking a metadata to an image preventing an unauthorized person to get access as it is well known in the art.” Note, the motivation came from the secondary reference for having a motivation to combine the two references. Iwamura does not need to show that the compensation was needed. Cox does. And as stated in the previous office action, Cox does this at col. 8 line 11 and col. 8 lines 33-47.

Applicants’ argue on page 15 with regard to claims 54 and 66 stating:

“Cox passage does not teach or suggest correcting for distortion in the received image data (claim 54) or correcting for distortion in the media (claim 66). Rather, at best, this passage discusses locating image areas that are least likely to be affected by distortions. See, e.g., lines 29-33. There is no mention in this passage of correcting for distortion already in images or media.”

The examiner respectfully disagrees.

Cox discloses the limitation “correcting for distortion in the received image data” or “changing a geometric orientation of the data” as mentioned everywhere else in the previous office action when using the reference at col. 8 lines 33-60.

3. Applicant’s arguments, see pages 8-10 (with regards to claims 51, 63 and 66), filed August 2, 2006, with respect to the rejection(s) of claim(s) 51, 63 and 66 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 48-53, 58-65 and 69-72 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iwamura (US 6,425,081) in view of Cox et al. (hereinafter, "Cox") (US 5,930,369).

With regard to **claim 48** Iwamura discloses a method of linking an image to metadata contained in a network resource (Figure 4), said method comprising: receiving data corresponding to an image (image data G, col. 26 lines 34-35); changing a *geometric orientation* of the data (by embedding user's information U in the image G, col. 26 lines 40-50, and by generating and embedding the signature S at col. 26 lines 53-67); calculating a plural-bit identifier from the changed data (calculating a hash function, col. 27 lines 13-27); providing at least a sub-set of the plural-bit identifier to a network resource to identify metadata associated with the image (col. 27 lines 28-47); and receiving from the network resource at least some of the metadata associated with the image (col. 27 lines 39-43, col. 28 lines 8-19). Iwamura does not expressly disclose changing a *geometric orientation* of the data. Cox discloses this at element 18, Figure 1, col. 8 line 11, lines 33-47. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the teaching of Cox with Iwamura. The motivation for doing so is to have a watermarking method be resilient to any distortions introduced by transmission or compression algorithms as suggested by Cox; also, by having orientated the data of the image and linking a metadata to an image preventing an unauthorized person to get access as it is well known in the art. Therefore, it would have been obvious to combine Iwamura with Cox to obtain the invention as specified in claim 48.

With regard to **claim 49** Iwamura discloses data comprising image at col. 26 lines 34-36.

With regard to **claim 50** Cox discloses geometric orientation of the data comprising at least one of scaling, rotating, and translating at col. 8 lines 35-37.

With regard to **claim 58** Cox discloses orientation embedded in the image as seen in Figure 7 and its respective portions in the specification.

Claim 60 recites identical features as claim 48. Thus, arguments similar to that presented above for claim 48 is equally applicable to claim 60. Note, media signal is an image data in both of the references.

Claim 61 recites identical features as claim 58. Thus, arguments similar to that presented above for claim 58 is equally applicable to claim 61.

Claim 62 recites identical features as claim 49. Thus, arguments similar to that presented above for claim 49 is equally applicable to claim 62.

Claim 51 recites identical features as claim 48. Thus, arguments similar to that presented above for claim 48 is equally applicable to claim 51. Note, “inherent attributes of the changed image data” is as same as “sub-set of the plural-bit identifier” in claim 48. The ‘signature’ in Iwamura meets both of these limitations by the same standard as signature represents the inherent attributes as well as the identifier.

With regard to **claim 52** Cox discloses geometric orientation of the data comprising at least one of scaling, rotating, and translating at col. 8 lines 35-37.

With regard to **claim 53** Cox discloses data comprising image or audio at col. 8 lines 8-9.

With regard to **claim 59** Cox discloses orientation embedded in the image as seen in Figure 7 and its respective portions in the specification.

Claim 63 recites identical features as claim 51. Thus, arguments similar to that presented above for claim 51 is equally applicable to claim 63.

Claim 64 recites identical features as claim 59. Thus, arguments similar to that presented above for claim 59 is equally applicable to claim 64.

Claim 65 recites identical features as claim 53. Thus, arguments similar to that presented above for claim 53 is equally applicable to claim 65.

With regard to **claim 69** Iwamura discloses the inherent attributes of the changed image data comprising a plural-bit identifier as disclosed above in claims 48 and 51. The explanation and motivation to combine are as disclosed above in claims 48 and 51 and the arguments are not repeated herein, but are incorporated by reference.

With regard to **claim 70** Iwamura discloses a hash function as disclosed above in claim 48

Claim 71 recites identical features as claim 69. Thus, arguments similar to that presented above for claim 69 is equally applicable to claim 71.

Claim 72 recites identical features as claim 70. Thus, arguments similar to that presented above for claim 70 is equally applicable to claim 72.

6. Claims 54-55, 57 and 66-67 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gindele et al. (hereinafter, "Gindele") (US 6,785,421) in view of Cox et al. (hereinafter, "Cox") (US 5,930,369).

With regard to **claim 54** Gindele discloses a method of linking an image to metadata contained in a network resource comprising: receiving image data from a wireless device (Figure 2, col. 4 lines 9-10, 57-60); comparing inherent characteristics of the *corrected* image data to a plurality of image records, wherein each image record includes at least image characteristics (col. 12 lines 7-41); upon a successful match with an image record, identifying metadata associated with at least one of the image record and image data (metadata (i.e., feature representation), col. 13 lines 22-31 and col. 17 lines 41-57); and providing identified metadata to the wireless device (this information is provided to a computer system which can be remotely located, col. 6 lines 64 to col. 7 lines 1-2). Gindele does not expressly disclose correcting for distortion in the received image data. Cox discloses this at col. 8 lines 33-60. At the time

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of the invention, it would have been obvious to a person of ordinary skill in the art to combine the teaching of Cox with Gindele. The motivation for doing so is to apply watermark in the image data where the regions of the spectrum that are least affected by the distortion by correcting, eliminating, or determining that area. Therefore, it would have been obvious to combine Gindele with Cox to obtain the invention as specified in claim 54.

With regard to **claim 55** Gindele discloses metadata being an image, col. 17 lines 41-57.

With regard to **claim 57** Gindele discloses wireless device, which could be a telephone at col. 3 lines 41-50.

Claim 66 recites identical features as claim 54. Thus, arguments similar to that presented above for claim 54 is equally applicable to claim 66.

With regard to **claim 67** Cox discloses steganographic orientation component and said correcting utilizes the steganographic orientation component as seen in Figure 7 and its respective portions in the specification and at col. 9 lines 20-39.

7. Claims 68 and 73-74 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gindele et al. (hereinafter, "Gindele") (US 6,785,421) in view of Cox et al. (hereinafter, "Cox") (US 5,930,369) as applied to claims 54-55, 57 and 66-67 above, and further in view of Iwamura (US 6,425,081).

With regard to **claim 68** Iwamura discloses a hash function as disclosed above in claim 48. The explanation and motivation to combine are as disclosed above in claim 48 and the arguments are not repeated herein, but are incorporated by reference.

Claim 73 recites identical features as claim 69. Iwamura discloses the inherent attributes of the changed image data comprising a plural-bit identifier as disclosed above in claims 48 and 51. Thus, arguments similar to that presented above for claim 69 is equally applicable to claim 73.

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Claim 74 recites identical features as claim 68. Thus, arguments similar to that presented above for claim 70 is equally applicable to claim 68.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US 2002/0012444 A1 – Image processing for judging whether image data include specific information related to copy protection

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shefali D. Patel whose telephone number is 571-272-7396. The examiner can normally be reached on M-F 8:00am - 5:00pm (First Friday Off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jingge Wu can be reached on (571) 272-7429. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

sdp

JINGGE WU
PRIMARY EXAMINER

Shefali D Patel
Examiner
Art Unit 2624